

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 04023092
PUBLICATION DATE : 27-01-92

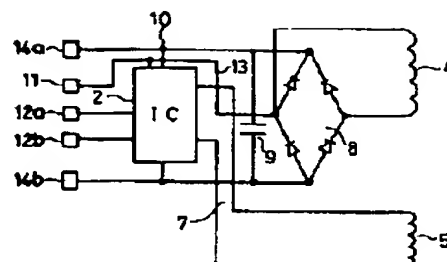
APPLICATION DATE : 17-05-90
APPLICATION NUMBER : 02127208

APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : INOUE TAKESHI;

INT.CL. : G06K 19/07 B42D 15/10

TITLE : IC CARD



ABSTRACT : PURPOSE: To build contact and non-contact systems in one IC card by adopting a contact electrode terminal and non-contact of electromagnetic induction coupling.

CONSTITUTION: In the contact system and the non-contact systems, power can be supplied to one terminal 10 of an IC 2 by full wave rectification of the waveform due to electromagnetic coupling of non-contact. After a clock is detected by a power rectifying circuit in the non-contact system, the clock is generated from a contact end by an internal circuit. Since signals in the non-contact system and the contact system are different from each other with respect to data transmission and reception, independent input/output terminals are assigned to the IC 2. That is, one IC can cope with both systems. The power waveform of non-contact is made continuous by a full-wave rectifying circuit 8 and is smoothed to DC power by a smoothing circuit consisting of a smoothing capacitor 9. The clock waveform has the pulse waveform detected and is supplied to the IC 2. Thus, the contact system and the non-contact system are built in one IC card.

COPYRIGHT: (C)1992,JPO&Japio

Best Available Copy